

Utilizing the CIPP Model as a Means to Develop an Integrated Service-Learning Component in a University Health Course

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ABSTRACT

Purpose: To examine the enhancement of a university health course through the utilization of the CIPP Model as a means to develop an integrated service-learning component. **Methods:** The CIPP model was utilized in two concurrent semesters of an undergraduate health course in order to design and evaluate the implementation of a drug and alcohol prevention event on campus. Data analysis utilized SPSS in order to calculate quantitative measures of mean and standard deviation to assess the pedagogical impact. **Results:** Through the service-learning project, students were provided the opportunity to apply course content related to the seven areas of responsibilities of a health education specialist within the chosen community. By focusing on the seven areas of responsibility, students were able to develop specific skills, competencies, and points of view needed by professionals in the field most closely related to this course. **Conclusion:** Student assessment of the event was consistent with previous literature: service-learning enhanced health promotion knowledge, enhanced subject matter, and increased student ownership of the curriculum. **Recommendations:** Due to the potential to enhance student understanding and application of health education material as well as establish and sustain community partnerships, service-learning holds enormous potential and should be considered as a valid pedagogical method in an undergraduate college curriculum.

INTRODUCTION

Service-learning integrates methods of teaching and learning into a synergistic concept. By applying what is learned in the classroom through service to the community, the students benefit from a deeper understanding of course material (Cashman & Seifer, 2008). Furthermore, the community participants should benefit

through the service provided by the students (Deeley, 2010). As a pedagogical strategy that seeks to fuse traditional academic curriculum with community involvement, service-learning enhances the learning environment of the student through meaningful service. For the student, service-learning allows for ownership of course material through the act of service (Slavkin, 2007), thus forming a meaningful

collaboration between the students and the community they serve (Meaney, Housman, Cavazos, & Wilcox, 2012).

In comparison, fundamental community service primarily addresses the community needs alone with no educational reflection or application of course material. An effective service-learning program should provide meaningful experiences that will foster personal-social attributes such as leadership, teamwork, and cooperation among all involved (Slavkin, 2007). Effective service-learning also provides students the opportunity to apply knowledge to address community needs that are multifaceted in nature, as compared to traditional classroom instruction where the student application of course content is more generalized or abstract. Lastly, reflection and evaluation of the service must take place by stakeholders involved including the instructor, students, and the community being served in order to be meaningful (Eyler & Giles, 1999). Anderson, Swick, & Yff (2001) expanded on ideas of quality service-learning programs and the role of reflection and evaluation through the development of six characteristics necessary in quality service-learning programs which include 1) high quality service to the community, 2) integrated learning between the service activity and the classroom, 3) reflection by the student to assist in incorporating service experiences and academics, 4) enhance students' role in planning and implementing the learning activities, 5) collaboration to ensure benefits for all, and 6) evaluation to effectively assess progress toward both the learning and service goals.

Developing Service-Learning Curriculum

Incorporating service-learning into a college curriculum should reflect quality program characteristics, while specific consideration of course framework is emphasized (See Figure 1). Establishing reciprocal community-campus collaboration provides the foundation for all other components related to service-learning utilization as a pedagogical method. To maximize the effectiveness of service-learning, the implementation of the curriculum requires specific learner goals and objectives that are shared by both the institution and the community. Specific learner outcomes help to narrow the focus of the service-learning and allow for selection of appropriate resources as well as constructing the course infrastructure

which allows for the sustainability of the course or program.

Before implementation, it is necessary to develop an evaluation method in order to assess how well objectives are being met, and determine the success of an implementation within curriculum (Cashman & Seifer, 2008). While evaluation is often associated as the terminal step in an effective service-learning program, Zhang et al. (2011) assert that evaluation can adequately be incorporated at every stage of service-learning projects. Such steps include planning, implementation, and outcome to make the intervention more effective and meaningful. A framework or model can be used by the instructor as a step-by-step guide to strengthen and improve the service-learning program. One such framework that provides specific guidance in assessing a service-learning program is the CIPP Model (Stufflebeam, 2003). The individual components of the CIPP Model include context, input, process, and product evaluation. These components are designed to identify specific needs and barriers within a community, develop a program to address those needs, effectively monitor program progress, and assess the effectiveness of program outcomes. The first three components of the CIPP model seek to improve the planning and implementation of the program while the last component provides an outcome evaluation of the program (Frye & Hemmer, 2012).

Context evaluation guides the planning stages of a service-learning project and seeks to prevent pitfalls that may arise at later stages of the implementation (Zhang et al., 2011). This component also seeks to define the educational as well as community needs and identify potential problems or barriers that would prevent needs from being met. Additionally, context evaluation allows for identification of expertise and resources available as well as potential funding opportunities or administrative support. By using evaluation to anticipate potential shortcomings, goals and objectives can be defined to effectively utilize resources and partnerships to impact the needs of the students as well as the community (Frye & Hemmer, 2012).

Input evaluation focuses on assessing diverse approaches of implementation for a program with the goal of determining an optimal

method that effectively addresses need identified through context evaluation (Frye & Hemmer, 2012). The purpose of input evaluation is to weigh all available options, taking into account the cost-effectiveness or feasibility of proposed approaches to clearly identify an optimal strategy to meet the needs of students and the community (Stufflebeam, 2003). Steps used during an input evaluation include assessment of potential volunteers, materials, resources, schedules, and budgets (Zhang et al., 2011).

Process evaluation occurs throughout the duration of the service-learning endeavor, allowing for reevaluation and adjustment of resources or objectives if they are found to be suboptimal for achieving program goals. Due to the dynamic nature of process evaluations, adjustment can be made on-site during an implementation based on feedback received from the evaluation (Zhang et al., 2011). This on-site evaluation allows the instructor to guide in-process revisions that may result from inadequate equipment, space, or participants not carrying out their roles. Process evaluation may also be implemented in retrospect as a tool to assess the actual implementation as it happened in order to alter future implementations to increase effectiveness (Frye & Hemmer, 2012). Methods to assess the implementation include observation, reflection from students and participants, surveys, records analysis, and document review (Zhang et al., 2011).

Product evaluation is used to provide outcomes regarding the impact of the service-learning program to address identified needs as well as determine if the program's current structure is sustainable and can be implemented in alternative settings. An effective product evaluation will identify positive and negative consequences in addition to intended and unintended outcomes and their implications (Frye & Hemmer, 2012). If the results suggest that the program did not meet specified outcomes, or is not transferrable, the product evaluation provides insight into adjustments to make the program more effective. Methods applicable to product evaluations include document retrieval and analysis, logs, diaries, results from comparable programs, and participant interviews (Zhang et al., 2011).

As previously discussed, there has been success using the CIPP model as a framework for service-learning projects. As planning models are also helpful for health education programs, it was logical to utilize the CIPP model to plan, implement, and evaluate service-learning in a health education curriculum project.

Service-Learning and Health Education

The U.S. Department of Labor, Bureau of Labor Statistics (2014) defines health educators as those who aid individuals and community members in the adoption of positive health related behaviors through the use of assessment, design, implementation, and evaluation of health interventions. The National Commission for Health Education Credentialing (NCHEC) defines seven areas of responsibility of health educators (See Figure 2). The NCHEC areas of responsibility possess sub-competencies also; however the focus of the seven areas in general will be emphasized. One role of health educators includes addressing the needs of an individual or community. Communities have a diverse set of needs with a variety of barriers in which to overcome. The intricacies of individual and community needs require health education students to apply skills addressing the diversity of needs thus enhancing the student's professional development. Service-learning provides students with the opportunity to apply skills to a variety of community health related needs and develop those skills as they relate to the seven areas of responsibility for health educators (Champagne, 2006).

The incorporation of service-learning in a health education undergraduate course has created the need for alignment of service-learning and its impact on health education curricula (Champagne, 2006). Service-learning increases student understanding of course content, and learning of intervention techniques related to health disparities (Cashman & Seifer, 2008). Additionally, service-learning in a health education course can increase relationships between the undergraduate health education experience and community agencies or public school districts. This is accomplished when undergraduate students are integrated into public school programs at an earlier stage in their college courses with increased frequency of exposure (Hodges & Videto, 2008).

Health education students may enhance their comprehension and skills related to the seven areas of responsibility of a health educator when exposed to field experience through service-learning. Champagne (2006) studied the "relationship between service-learning and development of skills in the seven areas of responsibility" (p. 139) which highlights positive student expectations and benefits prior to the service-learning event. As service-learning experiences unfold, sometimes the positive expectations of students change to frustration due to the perception of their experience not aligning with previous expectations. Champagne reported the value of process evaluation in service-learning as an opportunity for students to share and discuss issues. Although students perceived expectations not being met concerning the experience and growth within the seven areas of responsibility, results from the study confirm that all students "developed professionally in all seven areas of responsibility" (Champagne, 2006, p. 144).

Similar to Champagne's findings, service-learning allows for students to understand how to intervene on factors affecting the health and wellbeing of a population (Cashman & Seifer, 2008). However, for student experience to be enhanced, and therefore build experience within the seven areas of responsibility, students must understand learning expectations of the service-learning experience. Furthermore, service-learning as a teaching method in health education enhances student knowledge of socioeconomic factors in health. Undergraduate students are prepared through service-learning to be professionally trained to enhance the health of others (Cashman & Seifer, 2008).

Hodges and Videto (2008) echo the previous statement of conducting process evaluation during service-learning. Such an evaluation allows for student reflection of struggles and modifications to be made that enhance both the course instruction and the impact of the service. In addition, Hodges and Videto (2008) write that students do not fully understand the health education responsibilities unless provided with an opportunity to experience their application. Service-learning provided students an opportunity to describe from first-hand experience the skills needed to successfully implement the areas of responsibility.

PURPOSE

It has been previously discussed that student acceptance and desire to participate in service-learning is important. Assuring students have a voice in the development, implementation, and evaluation of a project enhances student participation. Students may lack motivation to participate in service-learning projects within a health education course if they do not have a health education background. This lack of motivation could be due to students outside the field of health education struggling to understand the core concepts within health education. Service-learning projects may provide a bridge connecting students who lack a health education background to course content (Hodges & Videto, 2008).

The kinesiology course Drugs in the Athletic Environment (KINS 3500) is an upper division general education course with students coming from a variety of majors. This course addresses the issues concerning drugs in sports. In addition to a general survey of the impact of drugs in society, the review of drug control policies employed by the National Collegiate Athletic Association (NCAA) and other governing sport organizations, and the uses and effects of ergogenic, medical, abusive, and recreational drugs will be emphasized. The purpose of this course is to prepare the student to recognize the physical, mental, and legal consequences of drug use and abuse. Based on previous literature, the incorporation of service-learning should enhance course content knowledge. Therefore, the purpose of this research was to examine the enhancement of a university health course through the utilization of the CIPP Model as a means to develop an integrated service-learning component.

METHODS

Before the project or research was conducted, Institutional Review Board approval was obtained at California State University (CSU), Stanislaus. Additionally, informed written consent was obtained from all students voluntarily and was submitted to the instructor prior to course student data collection. The CIPP model was used in a general education drugs course during the fall semesters of 2012 and 2013, due to its capacity to evaluate and focus on program improvement at all stages of the project. This model is appropriate to use in a

service-learning pedagogical approach because of its ability to adapt to the needs of the project.

Participants

The service-learning project was implemented in a general education drug course on the campus of CSU, Stanislaus. As of fall 2012, enrollment was 8,745 students. Forty percent of students were Hispanic, 32.5% were Caucasian, 11.6% were Asian/Pacific Islander, and 14.7% African America, American Indian, or other. The Kinesiology Department is the second largest degree program within the College of Education. The Department of Kinesiology consists of degrees in kinesiology, kinesiology with a concentration in health and wellness promotion, the single-subject preparation program in physical education, and a liberal studies concentration in kinesiology. Enrollment in the course primarily consists of students majoring in kinesiology with a concentration in health and wellness promotion in addition to other students outside of the major. This course is offered only in the fall semester of each year with an average enrollment of 35-40 students.

Context Evaluation

According to the National Institute on Alcohol Abuse and Alcoholism (NIAAA, 2013), four-out-of-five college students consume alcoholic beverages, and about fifty percent of those students who consume alcoholic beverages binge drink. Binge drinking is defined by the NIAAA as consuming alcohol to a point where "blood alcohol concentration reaches 0.08 gram percent or above" (NIAAA, 2004). Additionally, the rate of illicit drug use among college students between the ages of 18-22 years of age is 22%. It has also been reported that 25% of full time college male students and 19.5% of females are current users of illicit drugs and 23.5% of males and 16% of females are current marijuana users. In addition, 20.6% of Hispanic and 22.7% of Caucasian full time college students are current illicit drug users (Substance Abuse and Mental Health Services Administration, 2013). The prevalent use of drugs and alcohol among college student populations indicates a need for health education on college campuses.

As previously mentioned, the course consists of students from a variety of majors. Energizing students to understand the application of health education is a struggle if not majoring in the subject matter. Service-learning can be used as

a bridge between the needs of the students in the course, as well as the needs of the university student community. A pedagogical goal was set to include service-learning in the curriculum to enhance the understanding of the material as well as the application of the seven areas of responsibility for health education specialists. Objectives were defined to meet the primary goal of enhancing the curriculum, but also the impact on the community (See Figure 3).

Input Evaluation

This service-learning project was designed to incorporate both components of service-learning: service and learning. Service is seen through kinesiology students providing a health education program to their peers concerning many areas related to the topic of drugs, alcohol, and prescription drug use. Learning is seen through the kinesiology students' application of knowledge learned through the course, and through the design, implementation, and evaluation of the event by the students and university participants. To understand learning in more detail a discussion is needed on the type of pedagogical method utilized.

Instruction of the general education drugs course turned the classroom "inside out". Instead of delivery by a lecture only and assigning homework or projects that are done outside of class, class time is used for the development and application of homework related to a service-learning project that enhanced the subject matter. The use of class time assures students have a voice in the development of the service-learning project, both individually and collectively. Early in the semester, students were assigned to groups based on results from the DISC personality test. The DISC personality test categorizes participants as: Dominance, Influence, Steadiness, and Conscientiousness. Time was spent learning the different personality styles and how to work within a group utilizing each style's strengths. Each group assigned roles for every member such as station leader, marketing leader, supply organizer, and station presenter. Additionally, groups assigned job descriptions to the roles and developed a work ethic contract, expectations, and consequences that were signed by each group member. The initial implementation of the service-learning project was done so with a service-learning grant funded through the University Service-Learning Department. The service-learning grant helped

KINS-3500 organize and execute a drug and alcohol health fair in November called "Just Say NO!vember". To determine if grant funding aided in student ownership of the project, the second year of the event was not funded by a grant. Additionally, students have learned the application of working with all stakeholders to develop a university community service-learning project through collaboration with Associated Students Inc. (ASI), Kinesiology Club, and the Student Health Center Peer Educators. Each group was responsible for the following: a poster board with educational information; an original handout with educational information; an educational activity that reinforced the information; an evaluation tool for their "booth" completed by participants; as well as prizes for participants.

The marketing leaders of each group were tasked with devising promotional strategies to maximize student university community participation. Project 1 was solely responsible for marketing the "Just Say NO!vember" event through promotion utilizing emails, flyers, posters, shirts, word of mouth and social media websites such as Facebook. Project 2 also was responsible for promotion of the event but the majority of promotion took place through Associated Students Inc. using the event as a required drug and alcohol education event for all club and other campus organization student officers.

Process Evaluation

To provide an ongoing check on the program's implementation, a trial run-through was organized in order for all student groups to present their information for instructor feedback prior to the actual "Just Say NO!vember" event. Both Project 1 and Project 2 incorporated this evaluation to allow for correction of mistakes such as poor organizational structure of their poster board and handouts. The feedback addressed issues such as the organization and accuracy of information for the groups' poster boards and handouts. Emphasis was also placed on the appropriate in-text citation of sources and the presenter's mastery of subject material. Students also had to explain their proposed activity, relating it to their subject topic and how it would be implemented within the program including gathering resources and equipment.

The implementation of the "Just Say NO!vember" event involved the collaboration of stakeholders including the KINS-3500 students, Associated Students Inc., the Peer Educators, Kinesiology club, and university community students. The implementation was actively evaluated to ensure that stakeholder roles were carried out. This included making sure all equipment needed for the event was present and available as well as assessing the potential needs of collaborating organizations and addressing them. In addition, university student participants were monitored in order to address issues with flow throughout the venue and to provide all community participants with an event survey as well as be a resource for any questions they may have had.

RESULTS

To evaluate the "Just Say NO!vember" service-learning project or any service-learning project, objectives should be evaluated. Because objectives are an evaluation of goals, a successful service-learning project will assess progress throughout the project. Therefore, the summative results are equal in importance to other results gathered through a process or formative assessment during the planning, and implementation (Moulton & Moulton, 2013).

Product Evaluation

Project Goal. To examine the utility of the Context, Input, Process, Product model (CIPP) and its application within a service-learning component of a college health course.

Objective 1. During the duration of the project, students will be involved in the design, implementation, and evaluation of the project.

Assessment 1. Students of the KINS-3500 course were assigned to groups based on personality tests administered at the beginning of the semester for both Project 1 and Project 2. The DISC personality test was utilized, indicating a personality in one of four areas: dominance, influence, steadiness, and conscientiousness. Groups included at least one member of each of the four areas of the personality areas to simply introduce students to the idea of working with others with different personalities than themselves. Groups are responsible for the development of a topic, developing educational material, and evaluating participant knowledge with three questions related to their subject material.

Objective 2. During the planning of the project, students will assign roles and responsibilities to each member of the group as well as group expectations for the entirety of the project.

Assessment 2. Students of the KINS-3500 course were assigned to groups based on personality tests administered at the beginning of the semester. Groups were responsible for assigning roles and responsibilities and documenting them via a contract that included consequences for breaking rules established by the group. Each member was to sign the contract. Peer evaluations for Project 1 ($M = 9.3$, $SD = .12$) and Project 2 ($M = 9.1$, $SD = .18$) were conducted using a ten point scale, with a one assigned as low and ten as high adherence and completion of roles and responsibilities. Because each group evaluated each other based on their own group defined roles, the reliability of such a scale is low due to its subjective nature.

Objective 3. Before implementation, a process evaluation will determine the majority of the students' grade related to the project, as well as allow for corrections before implementation.

Assessment 3. Prior to implementation, a trial run of the event took place to review the accuracy of information as well as organizational structure and the proper citation. Ninety percent of the students' grade for the project was determined by the process evaluation. Both Project 1 ($M = 87.3$, $SD = 4.2$) and Project 2 ($M = 88.6$, $SD = 3.7$) were evaluated using the same criteria and rubric.

Objective 4. At the end of the semester students will evaluate the general education drugs course.

Assessment 4. The IDEA student evaluations utilized by the university, focuses on student learning in 12 different objectives. The professor selects objectives that are essential or important, because not all objectives apply to each course. Essential objectives are double weighted in the summary of student progress concerning the objectives. The objectives are scored on a five-point scale with one rated as no apparent progress and five as exceptional progress. Additionally, students are asked to rate both the course and the teacher, which are also rated on a five-point scale; one is definitely false and five is definitely true.

Because the service-learning project was administered in two classes spanning two

different semesters, the average of the two-semester results from the IDEA course evaluation are presented. The objectives that were chosen as essential and important were as follows: gaining factual knowledge (terminology, classifications, methods, trends) ($M = 4.6$, $SD = .6$); learning to apply course material (to improve thinking, problem solving, and decisions) ($M = 4.5$, $SD = .8$); developing specific skills, competencies, and points of view needed by professionals in the field most closely related to this course ($M = 4.6$, $SD = .7$); acquiring skills in working with others as a member of a team ($M = 4.7$, $SD = .5$); and developing skill in expressing myself orally or in writing ($M = 4.6$, $SD = .6$). Overall ratings concerning evaluation of the teacher ($M = 4.8$, $SD = .5$) and evaluation of the course ($M = 4.6$, $SD = .6$) were also reported.

Objective 5. During the service-learning project, university community participant knowledge will be assessed.

Assessment 5. Community participant knowledge was assessed for both project 1 ($n=117$) and project 2 ($n=223$) through content questions that corresponded to individual booth health topics and the overall satisfaction with event implementation. As evaluated through the questionnaire, 43% of community participants from project 1 and 65% from project 2 enjoyed the activities and their relationship to the material. Additionally, 25% and 44% from Projects 1 and 2 respectively mentioned they learned something new concerning drugs and alcohol. Again, because part of the project was to create questions relevant to each group the reliability is not measured due to the subjectivity of each group. However relevant information can be gained from satisfaction and perceived knowledge gain.

Objective 6. Identification of stakeholders and inclusion in the planning stages

Assessment 6. Primary Stakeholders:

1. Students enrolled in the drug course
2. University student body
3. University student government
4. University student peer health educators
5. University kinesiology club

Objective 7. At the end of the project, students will evaluate the project and its impact related to knowledge and application.

Assessment 7. Figure 4 displays the 19 question survey that was administered with a five-point scale as: strongly disagree (1);

somewhat disagree (2); neither agree nor disagree (3); somewhat agree (4); strongly agree (5). Question 19, what was your role within the group, utilized multiple choices: Station Leader (1), Marketing Leader (2), Supply Organizer (3), Station Presenter (4), Other (5) (Please describe). For this question, the most often chosen selection for both Project 1 and Project 2 was Station Presenter.

CONCLUSION

A pedagogical goal was set to include service-learning in the curriculum to enhance the understanding of the material as well as application of the seven areas of responsibility for health education specialists. Through the service-learning project, students were provided the opportunity to apply course content related to the seven areas of responsibilities of a health education specialist within the chosen community. By focusing on the seven areas of responsibility, students were able to develop specific skills, competencies, and points of view needed by professionals in the field most closely related to this course. The seven areas of responsibility and how students addressed them are summarized in Figure 5.

The incorporation of service-learning in this general education health related course proved to be successful. Quantitative data demonstrates the success service-learning had within the curriculum. Student ratings were consistent concerning the enhancement of health promotion knowledge between projects ($M = 4.69$, $SD = .08$ and $M = 4.71$, $SD = .07$). Creating a learning environment different than other kinesiology courses was also rated consistently between Project 1 ($M = 4.63$, $SD = .10$) and 2 ($M = 4.66$, $SD = .09$). Also, the enhancement of the subject matter was similar ($M = 4.60$, $SD = .09$ and $M = 4.55$, $SD = .11$) between both projects. With a mean score higher than 4.5 on essential and important objectives, the IDEA evaluations echoed student opinion that course objectives and student needs were met.

Aside from the quantitative data, observational data was obtained by the professor. Within the literature of service-learning there is an overarching idea that ownership from students and community members is needed. Student ownership was seen more in Project 2 than in Project 1. The

reason for this could be related to the grant used to buy poster board, shirts, and other items for Project 1. During Project 2, students bought their own booth items, as well as shirts related to their topics of discussion. This change could have also have translated to a 1.6 grade increase between Project 1 and Project 2. Not only did student participation seem to increase but community participation increased as well.

Community participation was increased between Project 1 and Project 2. Recruitment of participants as well as inclusion of Project 2 as a required drug and alcohol education event for all club and campus organization student officers, helped increase participation. With the Office of Student Involvement recognizing the importance of the event there was acknowledgement of the advocacy students in the course did for the event and health education. It is important to note the low scores related to the questions of the project being time consuming and needed on campus. The project was not designed to be time extensive outside of the regular scheduled class time. As mentioned previously, the course was designed to essentially turn the classroom "inside-out" by allowing time in class to work on projects. Finally, it may be surprising that students did not think the project was needed on campus, however the majority of the student community live off campus and it is the researchers' opinion that students do not find the need to be educated on drugs and alcohol on campus because participation in these behaviors occurs off campus.

RECOMENDATIONS

Future research should dive into this notion of off campus drug and alcohol use, and the need for educational events related to other topics for students who live off campus. Limitations to the study include not assessing the role personality played in the satisfaction of the service-learning event. Variables such as personality may influence the level of engagement within groups and thus influence involvement and satisfaction of the service-learning event. Future research should include additional assessment of the community participants. For example, community participant knowledge, before and after the event could be assessed. An additional recommendation includes surveying stakeholders to find their opinions of the event. An informal oral

evaluation was done but no empirical data was assessed concerning stakeholder opinions.

Additionally, instructor observations indicated a perceived increase in ownership between Project 1 and Project 2. It is hypothesized that increased responsibility to obtain funding for event materials in Project 2, as opposed to university grant funding in Project 1, may have been a factor that resulted in the increase of process and impact outcomes for both course students and university participants. Future research should examine the relationship between financial investment and ownership of service-learning projects to improve outcomes for students and the community they serve.

Although there were limitations, service-learning as a pedagogical method, facilitated by the CIPP model, effectively fused the traditional academic curriculum with community involvement. In addition, the reciprocal and reflective nature of service-learning fostered the maturation of positive personal-social attributes that increased students' professional development and community partnerships. Due to the potential to enhance student understanding and application of health education material as well as establish and sustain community partnerships, service-learning holds enormous potential and should be considered as a valid pedagogical method in an undergraduate college curricula.

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Figure 1: Service-learning Pedagogic Methodology

9 Pedagogic Methodology	Description
Establish the community-campus partnership	Community-campus share mission, values, goals, and mutual trust. Partnerships develop over time.
Articulate learner outcomes and competencies	Student learning objectives are established and shared with the community.
Select texts and other learning resources	Resources found to be helpful in understanding the community and expanding the model of learning and teaching.
Plan course instruction and activities	Student reflection is needed to connect the activities with the course.
Design course evaluation and improvement plans	Stakeholders are part of an evaluation.
Build course or program infrastructure	Institutional policies must be followed while integrating and building community support.
Sustain and maintain course and activities	Integrating the institution's mission with that of the community while incorporating health objectives may ensure sustainability.
Practice cultural humility	Courses should present culture-related interventions and evaluations.
Develop community-engaged scholarship	Multi-level partnerships should result in the advancement of scholarship in areas of teaching, and application.

(Cashman & Seifer, 2008)

Figure 2: NCHEC Seven Areas of Responsibility for Health Educators

- Area I: Assess Needs, Assets and Capacity for Health Education
- Area II: Plan Health Education
- Area III: Implement Health Education
- Area IV: Conduct Evaluation and Research Related to Health Education
- Area V: Administer and Manage Health Education
- Area VI: Serve as a Health Education Resource Person
- Area VII: Communicate and Advocate for Health and Health Education

(NCHEC, 2010)

Figure 3: Project Objectives

Project Objectives	Student/Community
During the duration of the project, students will be involved in the design, implementation, and evaluation of the project.	Student
During the planning of the project, students will assign roles and responsibilities to each member of the group and expectations of the group during the duration of the project.	Student
Before implementation, a process evaluation will determine the majority of the students' grade related to the project, as well as allow for corrections before implementation.	Student
At the end of the course, students will evaluate the course Drugs in the Athletic Environment.	Student
During the service-learning project, university community participant knowledge will be assessed.	Community
Stakeholders identified and included in the planning stages.	Both
At the end of the project, students will evaluate the project and its impact on many variables related to knowledge and application.	Student

Figure 4: End of Service-learning Project Survey

Question	Project 1 (M / SE)	Project 2 (M / SE)	Overall (M / SE)
Enhanced my learning of the subject matter.	(4.60 / .14)	(4.55 / .14)	(4.58 / .14)
Motivated me to work harder in this course.	(4.14 / .13)	(3.61 / .17)	(3.88 / .15)
Created a learning environment different than other courses within kinesiology.	(4.63 / .08)	(4.66 / .03)	(4.65 / .05)
Allowed for a more self-guided learning experience independent from traditional lecture.	(4.60 / .10)	(4.46 / .14)	(4.53 / .12)
Increased my interest in the subject.	(4.31 / .29)	(4.03 / .34)	(4.17 / .31)
Was closely related to the objectives of the course.	(4.63 / .06)	(4.42 / .14)	(4.53 / .11)
Was fun.	(4.71 / .12)	(4.61 / .17)	(4.66 / .14)
Was time consuming.	(3.51 / .19)	(3.63 / .17)	(3.57 / .18)
Was needed on campus.	(3.80 / .15)	(3.92 / .12)	(3.86 / .14)
Enhanced my ability to work in a group.	(4.32 / .16)	(4.37 / .15)	(4.34 / .15)
Enhanced my ability to work with other personalities.	(4.43 / .11)	(4.24 / .18)	(4.34 / .15)
Enhanced my confidence.	(4.03 / .20)	(3.79 / .24)	(3.91 / .22)
Enhanced my leadership skills.	(4.17 / .13)	(3.74 / .21)	(3.96 / .18)
Enhanced my organizational skills.	(4.23 / .21)	(4.21 / .24)	(4.22 / .23)
Enhanced my creative skills.	(4.09 / .13)	(3.68 / .17)	(3.89 / .15)
Enhanced my problem solving skills.	(4.03 / .17)	(3.49 / .29)	(3.76 / .25)
Enhanced my public speaking skills.	(4.46 / .16)	(4.03 / .31)	(4.25 / .25)
Enhanced my knowledge of health promotion (planning, organizing, marketing, working with others, evaluating).	(4.69 / .07)	(4.71 / .04)	(4.70 / .05)

Figure 5: Responsibilities and Student Application

Health Educator Areas of Responsibility	Student Application
Assess Needs, Assets and Capacity for Health Education	Students identified need and selected valid sources of health information.
Plan Health Education	Students developed the “Just Say NO!vember” event to address campus need.
Implement Health Education	Students implemented the “Just Say NO!vember” event to 300+ university students.
Conduct Evaluation and Research Related to Health Education	Students developed questions for participants addressing their booth topic.
Administer and Manage Health Education	Students managed their booths; recruited participants; identified stakeholders.
Serve as a Health Education Resource Person	Students obtained and disseminated health information.
Communicate and Advocate for Health and Health Education	Students tailored educational material to the university community (students).